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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,211	12/16/2004	Carl L. Christensen	PU020299	5249

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EXAMINER

RUTKOWSKI, JEFFREY M

ART UNIT	PAPER NUMBER
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2473

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10/13/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/518,211	Applicant(s) CHRISTENSEN ET AL.	
	Examiner JEFFREY M. RUTKOWSKI	Art Unit 2473	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,7,8,10 and 11 is/are rejected.
- 7) ☒ Claim(s) 2,3,5,6 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1, 4, 7-8 and 10-11** are rejected under 35 U.S.C. 102(e) as being anticipated by Langhammer (US Pat 6,781,408).

3. For **claim 1**, Langhammer discloses *a first routing engine (input circuitry 135) having input and output sides; a second routing engine (input circuitry 135) having input and output sides; a third routing engine (input circuitry 135) having input and output sides* (figure 5c shows the input circuitry 135 has input and output sides. The input circuitry 135 is the same as a routing engine because the input circuitry has routing and selecting logic; see figure 5c); *wherein data flows in to the input sides of the first, second, and third routing engines and data flows out from the output sides of the first, second, and third routing engines* (figure 5c shows data flows into the top and left side of the input circuitry 135 and out the right and bottom sides of the input circuitry 135); *a first discrete link, said first discrete link coupling said input side of said first*

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routing engine to said input side of said second routing engine; a second discrete link, said second discrete link coupling said input side of said first routing engine to said input side of said third routing engine; and a third discrete link, said third discrete link coupling said input side of said second routing engine to said input side of said third routing engine (figure 6 shows there are links that contain programmable logic connectors **651a/b** that are used to interconnect the inputs of the input circuitry **135** via general interconnection resources **120**; see figures 5c and 6. The links containing the programmable logic connectors **651a/b** are discrete because they are links that are used specifically to couple the inputs of the input circuitry **135**; see figures 5c and 6); *wherein the linearly expendable router is expandable by adding an additional routing engine (input circuitry **135**) having an input and output sides and by linking the input side of the additional routing engine to the input sides of the first, second, and third routing engines* (this feature is anticipated by Langhammer because figures 5c and 6 shows that additional input circuitry **135** is added simply by placing it on the general interconnection resources **120**).

4. For **claims 4 and 11**, Langhammer discloses *providing a fourth router having input and output sides* (figure 5c shows there can be any number of function specific blocks **130**); *coupling, using a fourth discrete link* (links that have programmable logic connectors **651a/b**), *said input side of said first router to said input side of said fourth router; coupling, using a fifth discrete link, said input side of said second router to said input side of said fourth router; and coupling, using a sixth discrete link, said input side of said third router to said input side of said fourth router* (figure 6 shows there are discrete links made up of programmable logic connectors **651a/b** that interconnect the inputs).

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5. For **claims 7 and 10**, Langhammer discloses *at least three broadcast router components (function specific blocks 130), each of said at least three broadcast router components (function specific blocks 130) is a discrete router (figure 5c shows that the function specific blocks 130 are discrete components that have routing logic) having an input side and an output side (figure 5c shows there are input and output sides of each function specific block 130) and including a routing engine (input circuitry 135) coupled between said input and output sides (figure 5c shows the input circuitry 135 is internal to each function specific block 130); and means for coupling (general interconnection resources 120; see figures 5c and 6) said at least three broadcast router components wherein said input side of each of said broadcast router component is connected, by a discrete link (links that have programmable logic connectors 651a/b), to each and every one of the other said input sides of said broadcast router components (figure 6 shows there are discrete links made up of programmable logic connectors 651a/b that interconnect the inputs) wherein data flows in to the input sides of the first, second, and third broadcast router components and data flows out from the output sides of the first second, and third broadcast router components (figure 5c shows data flows into the top and left side of the input circuitry 135 and out the right and bottom sides of the input circuitry 135); and wherein the linearly expendable router is expandable by adding an additional broadcast router component having an input and output sides and by linking the input side of the additional broadcast router component to the input sides of the first, second, and third broadcast router components (this capability is anticipated by Langhammer because figures 5c and 6 shows that additional input circuitry 135 is added simply by placing it on the general interconnection resources 120).*

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6. For **claim 8**, Langhammer discloses *wherein said input side of each of said at least three broadcast router components has N inputs and said output side of each of said at least three broadcast router components has M outputs* (figures 5c and 6 shows that each function specific block **130** has N inputs and a different number of M outputs, namely 2N outputs).

Allowable Subject Matter

7. **Claims 2-3, 5-6 and 9** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: **claims 2-3, 5-6 and 9** require a particular switching arrangement. A prima facie case of obviousness cannot be established by combining Langhammer with the previously cited art that was used to reject **claims 2-3, 5-6 and 9** because modifying Langhammer with the cited prior art would require major modifications to Langhammer.

Response to Arguments

9. The arguments with respect to Langhammer's links that contain programmable logic connectors **651a/b** not being discrete are not persuasive. The Applicant argues that the definition of a "discrete link" is a link that is not connected to or part of something else (see page 8, 3rd paragraph of Applicant's reply filed 08/10/2010). In other words, the Applicant appears to be arguing that a "discrete link" is a link that directly couples the input sides of two routing engines. However, the cited portion of the specification (page 2 lines 8-13 and 22-24) merely discloses the "discrete links" are used to couple the input sides of each routing engine. The cited portion

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of the specification is silent as to whether or not the "discrete links" directly couple the input sides of each routing engine.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY M. RUTKOWSKI whose telephone number is (571)270-1215. The examiner can normally be reached on Monday - Friday 7:30-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey M Rutkowski/
Examiner, Art Unit 2473

/KWANG B. YAO/
Supervisory Patent Examiner, Art Unit 2473